

Name

Solution

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ID:

Quiz1

Perform the following operation in binary:

a- $110000 - 11111$

$$\begin{array}{r} 110000 \\ - 11111 \\ \hline 010001 \end{array}$$

2

b- $100011 : 1011$

$= 11.001\dots$

$$\begin{array}{r} 100011 \div 1011 \\ \underline{1011} \\ 01100 \\ \underline{1011} \\ 00000000 \end{array}$$

2.5

Perform the following conversions:

$32 \ 16 \ 8 \ 4 \ 2 \ 1$
 $(10001)_2 = ()_{10} = 1 + 16 = (17)_{10}$

1.5

$(-25)_{10} = ()_{2's \text{ comp}}$ $n=7$

$(1100111)_{2's \text{ comp}}$

$(30)_{10} = ()_{1's \text{ comp}}$ $n=6$

$$\begin{array}{r} 011001 \\ 1001102 \\ \hline 1001111 \end{array}$$

2

$= (011110)_{1's \text{ comp}}$

2